Appl. No.

: 10/628,879

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AMENDMENTS TO THE CLAIMS

Please amend Claim 1 as indicated below.

- 1. (Currently amended) A method for detecting an analyte in a sample comprising:
 - (a) contacting a sample with a fluorophore-labeled aptamer bound to a solid support;
 - (b) directly illuminating the aptamer with polarized light whereby the direct illumination of the fluorophore directly excites the fluorophore;
 - (c) measuring the fluorescence anisotropy of the fluorophore when said fluorophore-labeled aptamer is bound to said analyte; and
 - (d) identifying the presence or amount of the analyte when [[said]] the measured fluorescence anisotropy measurement-is greater than an anisotropy measurement obtained in the absence of <u>bound</u> [[the]]analyte.
- 2. (Previously Presented) The method of claim 1 wherein the solid support is a bead.
- 3. (Previously Presented) The method of claim 2 wherein the bead is a silica bead.
- 4. (Previously Presented) The method of claim 2 wherein the bead has a diameter between about 1 μ m and about 10 μ m.
- 5. (Previously Presented) The method of claim 4 wherein the bead has a diameter of about 5 μm .
- 6. (Previously Presented) The method of claim 2 wherein the bead is suspended in solution.
- 7. **(Previously Presented)** The method of claim 2 wherein the bead is arranged in a two-dimensional array.
- 8. (Previously Presented) The method of claim 1 wherein the aptamer comprises between about 10 and about 100 nucleotides.
- 9. (Previously Presented) The method of claim 1 wherein the aptamer is labeled with a fluorophore selected from the group consisting of fluorescein derivatives, eosin derivatives, coumarin derivatives, and rhodamine derivatives.

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- 10. (Previously Presented) The method of claim 9 wherein the aptamer is labeled with carboxyfluorescein (FAM).
- 11. (Previously Presented) The method of claim 1 wherein the aptamer is part of an array of aptamers.
- 12. (Previously Presented) The method of claim 11 wherein the array comprises two or more addressable locations.
- 13. (Previously Presented) The method of claim 12 wherein each addressable location comprises a single type of aptamer.
- 14. (Previously Presented) The method of claim 12 wherein each addressable location comprises multiple types of aptamers.
- 15. (Previously Presented) The method of claim 14 wherein each type of aptamer is labeled with a fluorophore with unique spectral characteristics.
- 16. (Previously Presented) The method of claim 1 wherein the polarized light is laser light.
- 17. (Previously Presented) The method of claim 1 wherein the analyte is associated with a disease or disorder.
- 18. (Previously Presented) The method of claim 1 wherein the sample is obtained from a patient suspected of suffering from a disease or disorder.
- 19. (Previously Presented) The method of claim 1 wherein the analyte is a protein.
- 20. (Previously Presented) The method of claim 1 wherein the analyte is a metabolite.
- 21. **(Previously Presented)** The method of claim 1 wherein the sample is from a human patient and the analyte is associated with a disease or disorder.